

## CHAPTER 9

# **Work, Psychosocial Stressors, and the Bottom Line**

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The bottom line: it reflects a company's profitability or lack thereof, the profit that a particular company has made after all expenses and taxes have been paid. In an economic environment increasingly filled with global business competitors employing relatively cheap labor and inexpensive materials, many companies, including those in the United States, have had to think of creative ways to cut expenses in order to keep their bottom lines from shrinking. In this type of high pressure environment, where products often have limited pricing power, the primary focus is on improving productivity, and employee health remains a secondary concern, something to be dealt with as the need arises, not something in which to invest one's hard-earned capital.

From a purely economic standpoint, we believe that treating employee health in this manner is a mistake. While workplace injury rates appear<sup>1</sup> to have declined substantially since the Bureau of Labor Statistics first began reporting such data in the 1970s, with 4 years of consecutive declines between 2003 and 2006 [1], the physical environment is not the only contributor to employee ill health. According to the National Institute of Health, 60-80% of workplace accidents are stress-related. Preceding chapters have illustrated how a wide range of workplace organization and job characteristics can function as psychosocial stressors that have serious impacts on employee health and illness. Some of these stressors, such as heavy workload demands and conflict, appear to play significant roles in the development of burnout, anxiety, and depression (see Chapter 7) while others, such as job strain, shift work, and long work hours, have been implicated in physical injuries and the development of cardiovascular disease (see Chapter 6). In trying to reduce costs, companies frequently make changes in the ways in which work is organized and in individual

<sup>1</sup> Workplace injury and illnesses are affected by underestimates due to underreporting by employees and to regulatory changes in recordkeeping since 1992.

job requirements. Many of these changes can end up hurting rather than bolstering their bottom line by adding to health-related costs.

Downsizings and layoffs are other cost-cutting measures. Research into downsizing conducted by the American Management Association (AMA) for CIGNA found that 70% of the companies that had experienced downsizings and layoffs reported a substantial increase in disability claims, even with fewer employees [2]. According to Robert Morgan, President of Spherion Corporation's human capital consulting group, more than 50% of the people who left merged organizations did so because of merger-related stress. Dr. Mitchell Marks, an M&A consultant and organizational psychologist, said that companies "underestimate how much human pain is required to get to the financial gain, if they get the gain at all." In fact, 75% of the 37,000 deals recorded by Thomson Financial Securities will fail to achieve the intended financial goals [3].

If a relationship exists between work organization and health, then injuries and illnesses are not just the concern of the individual employee but are also the responsibility of the companies that create the deleterious working conditions. Moreover, there is a point for each company at which the enhanced productivity, if any, that results from organizational changes will be offset by the increased cost that results from damage to the workforce—unless, of course, the costs are externalized by replacing sick and injured workers with healthy ones.

## **DIRECT COSTS**

Both the direct costs of treating work-related illnesses and injuries and the indirect costs or resultant deficits in the amount of work or ways in which the work is done are borne to some extent by the employer. Although employers rarely pay directly for medical, hospital, and pharmaceutical expenses, employers do pay the health insurance premiums, disability, and workers' compensation benefits.

According to the Institute for Health and Productivity Studies, the top physical health conditions financially affecting large U.S. employers through direct costs were chronic maintenance of angina pectoris, essential hypertension, diabetes mellitus, mechanical low back pain, acute myocardial infarction, chronic obstructive pulmonary disease, back disorders other than low back, traumatic spine and spinal cord, sinusitis, and diseases of the ear, nose, throat, or mastoid processes [4]. Six of these 10 conditions have been associated with psychosocial stressors in past studies (see Chapters 6 and 7). The top mental health conditions were: bipolar disorders; depression; neurotic, personality, and non-psychotic disorders; alcoholism; anxiety disorders; acute phase schizophrenia, and psychoses. Of these conditions, anxiety disorders, depression, and alcoholism have been shown to have some roots in workplace stressors.

### **Health Care Premiums**

One hundred and fifty-five million non-elderly Americans rely on employers as their main source of health insurance [5]. Sixty-one percent of employers provided

coverage for more than 60% of all Americans in 2006 [6]. Ninety-eight percent of all workers participating in employer-sponsored plans had prescription drug benefits in 2006 [7]. According to a 2007 survey of 170 of the United States' largest Fortune 1000 companies with operations in multiple locations nationwide, health care premium costs for U.S. employers were projected to rise by 7%, or two-thirds higher than the consumer price index for the year in which the survey was conducted [8]. Respondents reported spending more than \$15 billion annually in premium costs for insured health and dental plans and premium equivalents in the form of estimated benefit and administrative costs for self-insured plans. These were the costs for employers who subsidize only 78% of this year's premium costs, thus leaving their employees to cover the remaining 22% in premiums in addition to deductibles, co-payments, and co-insurance.

According to Kaiser, health care costs have grown at an average annual rate of 9.8% since 1970 or, on average, 2.5 percentage points faster than the U.S. gross domestic product (GDP), faster than overall inflation (3.5%), and wage gains (3.8%) [7]. This figure was corroborated by Tower Perrin's finding that the cost of individual health insurance premiums has increased by more than 60% in just the past 5 years [8]. Kaiser found that premiums for family coverage have increased by 87% since 2000, with current average annual premiums for employer-sponsored coverage at \$4,242 for single coverage and \$11,480 for family coverage [7].

Health care costs encompass goods and services such as hospital stays and prescription drugs, dental services, and equipment purchases. More than half of the total costs are attributed to hospital care and physicians' services. Any increase in chronic illnesses, such as the ones clearly associated with exposures to workplace stressors, would serve to increase these costs.

Whereas premiums have increased between 8% and 14% every year since 2000, inflation and changes in employees' earnings were in the 3 to 4% range for the same period [7]. This means that workers have to spend more of their income every year on their portion of health care coverage and expenses. The amount of these costs covered by the employer versus the employee varies depending upon the industry and the employer's ability to pay. Sometimes, employers cut costs by requiring the employee to pay a greater percentage of the premiums; at other times they must shoulder greater co-pays at each office visit. Yet other times, the employer may reduce wages or limit wages in order to set off the rising costs associated with health care benefits. According to the U.S. Census Bureau, the percentage of businesses offering health benefits has steadily fallen since 2000 [6]. In addition, health benefits vary considerably by firm size. Nearly all companies with 50 or more employees offer coverage, with firms with more than 200 employees particularly stable over the years, states the Kaiser report [7]. Only 48% of the smallest companies (three to nine workers) offer health benefits (down from 57% in 2000), compared to 73% of firms with 10 to 24 workers, 87% of firms with 25 to 49 workers, and more than 90% of firms with 50 or more workers [7].

One surprising finding in the Towers Perrin study was that there was a wide variation in per capita costs even among companies of similar sizes offering similar

benefits. One in five respondent companies reported increases in costs of 11% or greater [8]. Those that reported smaller increases or no increases all had several characteristics in common, the most common being an emphasis on finding more solutions that address the underlying causes of health care cost increases, i.e., preventable illnesses and injuries. Given that many stressors are organizational in nature, it would be an easy place to start making changes in order to see a reduction in costs.

### **Disability and Workers' Compensation**

Disability claims are often associated with blue-collar work and workplace accidents, but 90% of workplace disabilities are the result of illness, not accidents [9]. Psychosocial factors contribute to workers' compensation and disability claims when they play a role in producing health outcomes, usually illnesses, which are recognized as compensable. The research described in some of the other chapters relating job strain and other psychosocial factors to repetitive motion injuries and back and neck injuries is an example of work-related health outcomes which carry a significant cost to the workers' compensation system. On the other hand, a number of health conditions, such as burnout, hypertension, and cardiovascular disease (CVD) which appear to be the result of exposure to workplace psychosocial stressors, are not recognized as yet as work-related disorders. The exclusion of these illnesses from workers' compensation coverage suggests two important and interrelated issues. First, despite a substantial body of scientific literature linking these conditions to causes in the workplace, they are considered primarily to be caused by individual-level risk factors, e.g., inability to cope with stress, poor diet, and exercise and other lifestyle choices. Second, the costs of including these "ordinary diseases of everyday life" must be seen as overly burdensome to the system. However, not including them simply offsets the costs onto health care, partly resulting in escalating health insurance premiums paid by employers anyway. This argument has yet to impact disability and the workers' compensation system.

Disability represents dollars paid in lieu of wages to employees who cannot work because of physical or mental impairments. Direct disability costs include temporary disability, permanent partial, and permanent total disability, disability pension, the disability component of Social Security, and miscellaneous accident insurance. Some economists also include workers' compensation—both medical and indemnity. When an employer purchases insurance to cover the costs of disability benefits, the premiums paid plus the internal expenses of administering the program constitute the direct cost of disability benefits. For self-insured employers, the cost is the actual payout for salary continuance or disability benefits plus the present value of future benefits for these claims. The employer's administrative cost is also usually included [10].

Workers' compensation insurance is mandated by law in all 52 states in the United States. Currently, workers' compensation insurance for employers is compulsory in all states except New Jersey and Texas. Five states, Wyoming, West

Virginia, Washington, Ohio, and North Dakota, require employers to use the state fund as the exclusive insurer. Most states make no numerical exceptions for minimum number of employees per firm in order to require workers' compensation insurance. Six have exceptions for those who employ fewer than three employees, two states have exceptions for fewer than four employees, and four states have exceptions for five or fewer employees. Almost all states provide full medical benefits as part of workers' compensation. Although this insurance is mandatory in most states, benefits vary by state. Benefits for total temporary disability and permanent total disability can vary from 66-2/3% of the worker's wages before disability to 80% of the worker's spendable earnings, while those for permanent partial disability range from 55% of the worker's wages before disability to 75% of the worker's spendable earnings [11].

The same way that benefits vary by state, the division of premium contributions between employer and employee also varies. According to the Kaiser report, premiums vary from 9% employee cost and 91% employer cost in Hawaii, to 25% employee cost and 75% employer cost in Alabama. The average cost for employers in all states is 82%. Family premiums also vary in division of cost, from 33% employee/67% employer in South Dakota, to 15% employee/85% employer in Michigan. The average contribution for all employers in all states for family premiums is 76% [7].

Because these contributions are mandated by law and because several states require use of the state fund as the primary insurer, many states have sought to reform their workers' compensation programs in order to cut back on costs to both the states and the employers. One example of this is the state of California, which has one of the most expensive workers' compensation systems in the country. Passed by the state's legislature in 1913, California's workers' compensation law was a no fault-system designed to shield employers from liability regardless of fault and provide workers with appropriate benefits for all work-induced injuries and illnesses. The system costs California employers more than any other state and provides the third lowest benefits to workers. In 1993, compensation costs in California were \$9 billion/year. In 2002, the costs had risen to \$32 billion [12].

In an attempt to reform the system, the state of California passed legislation in 2002, 2003, and 2004. The legislation enacted in 2002 sought to address the fact that the system had not seen a benefits increase since 1996. The legislation enacted in 2003 and 2004 sought to change some of the provisions passed in 2002. Overall, it is thought that these reforms have decreased overall costs by 45%, but this interpretation is based on several assumptions, including that there has been no change in the types of industries in the state; that if there had been no reforms that the claims costs would have remained more or less the same between 2003 when the first set of changes took effect and 2006 when a study was conducted to assess the impact of the reforms; and that the reported rates are accurate [12]. Findings from a study of the financial impact of these reforms have shown that most of these assumptions were met and that it is reasonable to assume that the 45% cut in costs is also correct, with the caveat that it is too soon to understand the long-term effects.

A 45% cut in costs to the system and subsequent reduction in premium costs for the employer seems like a very good thing on the surface. Unfortunately, some say that these changes will cut costs in the short term and increase them in the long term. The primary way in which costs were cut was by precluding medical care that was deemed unreasonable, unnecessary, or deleterious. This meant primarily cutting out physical therapy and chiropractic services and reducing the total number of occupational therapy sessions to 24, regardless of the severity and type of injury. A second source of savings is in a reduction in total payouts for injuries. In some cases, this reduction is quite significant. For instance, someone who has had an injury that requires spinal vertebral discs to be fused would have received \$100,000. Now the same person would receive \$10,000 in benefits. This reduction in benefits is even extreme compared to most other states. For example, a loss of a foot in other states would merit an average benefit of \$81,000. After the reforms in California, the same injury would merit a benefit of \$28,820.

Regardless of the repercussions to the injured individuals or the moral implications, these types of reforms to cut costs may not make sense financially in the long term. The reason they make sense on the surface is because they cut expenses immediately, thus allowing employers to increase their bottom lines via fewer direct expenses. The reason this may not be the best option is that direct costs are only a percentage of the costs that employers pay when an employee becomes injured or ill and reduced short-term services for workers' comp may result in more long-term illnesses.

### **INDIRECT COSTS**

Indirect costs are more difficult to calculate than direct costs, yet they account for more than half of the expenses associated with employee ill health [13]. The difficulty in calculating these costs lies in the choice of perspective used for the calculations and the fact that there are many layers to the costs involved. Indirect costs will also vary by occupation, industry, illness, race, and gender [14].

In general, indirect costs are the added costs to employers from increased workplace absenteeism/sick leave; short-term and long-term disability management; diminished productivity at work in the form of presenteeism; increased employee turnover; and the cost of law suits related to stress and mental health issues. The National Institute for Occupational Safety and Health estimated these associated costs at more than \$200 billion annually for U.S. industry in 1999 if one only took into account absenteeism, tardiness, and employee turnover [15]. Using Kaiser's finding that health-related costs have increased on average 9.8%/per year, and taking into account a total rate of inflation of 25.36% from June 1999 to June 2007 [6], this figure is closer to \$407.5 billion today.

As mentioned above, individual indirect costs are difficult to calculate. From the perspective of the individual, indirect costs would include costs to the worker associated with any impairment or loss in the ability to work as manifested through unpaid sick leave and decrement in income while on disability. It would also take into account the loss of an individual's ability to engage in leisure activities

because of morbidity or cost of the loss of financial contributions to the worker's dependents due to early mortality. In general, this accounting method values human life in terms of a person's income or value of leisure time. This is a correct formula for calculating indirect cost, but in reality, it has more to do with the cost to the employee than the cost to the employer.

An alternative perspective is a public health perspective. Public health practitioners take a societal perspective to indirect costs, which is based on the idea that the value of an individual's work and thus the cost associated with their inability to work can be measured by the individual's potential to generate income. This perspective is based upon the neo-classical economic model which assumes that a person's earnings reflect a person's productivity and thus their contribution to society. It is the perspective most commonly used by economists when calculating health-related indirect costs.

The greatest drawback of the public health perspective is that it undervalues workers who earn at the lowest levels. In addition, some have argued that this perspective does not truly reflect the needs of the employer because an employer would be more interested in the cost of lost production and idle assets due to morbidity and the costs of re-hiring and retaining replacement workers in the case of mortality than in the present value of future earnings foregone [16]. For this reason, this section on indirect costs will report on findings from studies that have used the more common "lost-wages" approach to calculating indirect health-related expenses and thus more closely reflect the costs to the business sector and society as a whole, as well as findings from studies that have used newer models for accounting for indirect costs that are meant to more closely reflect the costs to individual employers.

### **Mortality**

Indeed, there are many layers of costs related to work-induced injury or illness. Indirect costs depend not just upon the accounting method used, but also upon the level of severity of the illness or injury. The most severe case, of course, would be the case of worker death. Indirect costs associated with worker mortality would include the cost of replacing the employee, which will be further examined under the heading of turnover, and the value of lost future income.

Simply replacing the employee is not the employer's only concern. The death of an employee has other repercussions, including an increase in work burden, and thus increased psychosocial stressors on the remaining employees on top of any mental health effects that the death may have had on individual co-workers, thus affecting their levels of productivity and their own chances of suffering from ill health. According to Pollard, increased work burden has been shown to significantly increase psychological distress and systolic blood pressure [17].

### **Disability**

The total indirect cost of disability is calculated as the sum of hidden costs and management costs. Although employers intuitively acknowledge the hidden costs of

disability, usually they are unable to measure these costs even in organizations with sophisticated databases. The primary component of hidden disability costs is usually lost productivity, which can be calculated in terms of individual salary plus benefits for the time the employee is not fully replaced. The assumption is that an employee will produce a value amount equivalent to, if not more, than the amount that individual is being paid by his or her employer. This factor will be further discussed in the next section on productivity.

Disability management costs include programs designed to prevent the occurrence of disabilities or minimize their impact if they do occur. The costs of these programs include overhead costs associated with establishing and administering the programs, as well as case management expenses, return-to-work programs, wellness programs, employee assistance plans (EAP), medical clinics specializing in minimizing disability, and safety programs [18].

### ***Specific Illnesses/Morbidity***

Earlier in this chapter, we mentioned the illnesses found to have the greatest impact on business expenses in terms of direct costs. It may come as no surprise that these same illnesses have been identified as causing the most in terms of indirect costs to the employer [4]. Approximately half of these identified illnesses have been associated with workplace stressors. Table 1 is a chart of the indirect costs to the employer associated with some of these illnesses. The data are based on findings from Goetzel et al. [4]. Indirect costs to employers per employee are calculated by adding the total costs from presenteeism (decreased work performance), absenteeism, and short-term disability management.

The calculation uses the 2001 average hourly compensation rate of \$23.15 as a basis for calculating costs for absenteeism and presenteeism. The third column of the table adjusts for the updated hourly compensation rate for 2007 (\$25.91) according to the Bureau of Labor Statistics. Although the increased hourly compensation rate somewhat adjusts for inflation rates, assuming that hourly compensation

Table 1. Indirect Costs for Employers of Work-Related Illnesses  
(\$ per Person/per Year)

Medical condition	Indirect cost 2001 (\$)	Indirect cost adjusted compensation rate (\$)	Indirect cost adjusted total inflation rate (\$)
Depression	293.85	328.88	343.95
Heart disease	102.62	114.85	120.12
Hypertension	300.88	336.75	352.18
Diabetes	182.16	203.88	213.22
Migraines/ chronic headaches	196.70	220.15	230.24

rates are keeping up with inflation, it does not adjust for the inflated cost of idle assets; thus, it is best to also adjust for the total inflation rate, which in this case would be 17.05% from June 2001 to June 2007 [6].

## PRODUCTIVITY

Productivity measures are being used more often in business to calculate costs other than direct and indirect costs related to illness. These are often “hidden costs” which have been strongly associated with exposure to psychosocial stressors at work, including turnover, absenteeism, and “presenteeism” or decreased work performance. Unlike illness or injury costs, these costs evolve as employees seek to cope with difficulties that may arise in their personal lives (e.g., caring for a sick parent or children), as well as from exposure to a stressful work environment. Locating the causes of these productivity issues needs to extend beyond the individual’s private life to consider causes in the work environment.

### Turnover

Increased turnover rates have been associated with several psychosocial stressors in the workplace including lack of work-life balance [19], effort-reward imbalance [20], and job strain [21]. It has been estimated that up to 40% of turnover can be attributed to stressors at work [22]. The 2000 Integra Realty Resources study found that 19% of respondents had quit a job in the past because of stress [23].

Replacing an employee can be a very expensive proposition. Once the employee decides to leave or is fired, there are the costs of separation pay in the case of termination, cost of the exit interviewer’s time, and administrative, accounting, and legal costs. Vacancy costs include overtime pay for remaining employees, the cost of temporary workers, minus the amount saved in wages and benefits from having one less employee. During the vacancy period, there are hiring costs, which include advertising for the position or use of a hiring agency, the cost of screening applicants, the cost of interviews, testing costs, administrative, accounting and legal costs, and the possible costs related to travel and moving expenses and the cost of medical exams. After a new employee is hired, there are still formal training costs, other staff time for on-the-job training, and salary during formal and informal training. These are just the direct costs of replacing an employee. On another level, there are indirect costs such as the cost of lost productivity during transition, lost sales, lost intellectual capital, lost or damaged relationships with customers, the cost of rebuilding relationships inside and outside of the company, integration costs for the new employee, impacts on co-workers due to increased stressors resulting in increased absenteeism and lost productivity, cost impacts on suppliers due to interruption of efficiencies, cost of inefficiencies on the part of the departing employee, and the cost of inefficiency due to learning curves on the part of the new employee.

It is estimated that turnover costs average 120-200% of the salary of the position affected [24]. A research study by Nextera Enterprises Inc. suggested that industries with high turnover rates, such as retail, have 38% lower earnings and stock prices

due to replacement costs alone [25] and another study of 1,750 American manufacturing plants found that workers at plants with a turnover rate of less than 3% had nearly 170% of the productivity of those at plants with turnover rates of more than 20% [26].

### **Absenteeism/Sickness Absence**

The nature and number of employees' unscheduled absences has changed significantly over the last several years. According to the 2006 CCH Unscheduled Absence Survey, absenteeism is up at its highest reported rate, yet personal illness as a cause of absenteeism has dropped from 45% of total unscheduled absences in 1995 to 35% in 2006 and workplace stress has increased from causing 6% to 12% of unscheduled absences in the same time period [27]. It is important to note that the other non-health-related reasons given for absenteeism—family issues, time for personal needs, and an “entitlement mentality”—all can be interpreted as indicators of psychosocial workplace stressors, such as lack of work-life balance and effort-reward imbalance.

In general, the following demographic characteristics have been associated with increased absenteeism: being female, full-time, high tenure, low wage [28], working in the health and social services industries or working for a company with more than 500 employees [29], and belonging to a union [30]. The following work factors have been associated with sickness absence in past studies: long hours worked; work overload and high pressure; lack of control over work; lack of participation in decision-making; poor social support; and unclear management and work role. One recent study by Andrea et al. [31] found that job characteristics such as lower levels of decision latitude (i.e., job control) and the presence of one long-term disease were the strongest predictors of sickness absences exceeding a 1-month duration. A meta-analysis conducted by Darr reviewed 175 studies that examined the relationship between stress at work and absenteeism [32]. They concluded that an indirect causal relationship exists whereby stressors cause illness which then results in increased absenteeism. They also found a direct relationship by which absenteeism resulted as an adaptive coping response to the effects of stress by limiting exposure at times when the individual was most vulnerable to ill health. Regardless of whether absenteeism is used as a stress moderator or whether it is an indirect cause of stress in the workplace, it still affects the bottom line.

According to the U.S. Bureau of Labor Statistics, companies lose approximately 2.8 million workdays each year because of unscheduled absences in the workplace [15]. In 2002, the average cost of this absenteeism was estimated at \$789.00/worker/year nationally or, for large employers, more than \$3.6 million/year/per company [15]. A more recent study conducted by CCH Incorporated found that the absenteeism rate has been increasing steadily since 2000, and along with it, the average per-employee direct payroll cost [27]. Overall, they found that unscheduled absences have increased by a total of 24% within this 5-year period. Many of the costs associated with absenteeism stem from the need to hire temporary staff, pay overtime to permanent staff or overstaffing to prevent loss of productivity during

unscheduled absences. Those companies that do not do this pay in other ways when the increased burden of work affects the rest of their workforce.

### **Decreased Work Performance (Presenteeism)**

There is a problematic assumption that an employee who is not absent is being productive. Therefore, an employee who is present longer at work should be producing more. However, even when employees are physically present at their jobs, they may experience decreased and below-normal work quality—a concept known as “presenteeism.” A major concern to employers, this phenomenon is often referred to as LPT or LWPT (lost (work) productive time), and is characterized by 1) time not on task, 2) decreased quality of work, 3) decreased quantity of work, and 4) unsatisfactory employee interpersonal factors. Some data suggest that presenteeism is a larger productivity drain than either absenteeism or short-term disability. In 1999, the Employee Health Coalition of Tampa, Florida, found that lost productivity from presenteeism was actually 7.5 times greater than productivity loss from absenteeism [33].

Overall, presenteeism is costly to the employer and the workforce. It has been estimated that presenteeism costs U.S. companies \$250 billion/year or approximately \$2,000 per worker/year [34]. Presenteeism has been identified in studies of specific illnesses in the workplace, including migraines and depression [35], as well as studies of work-life balance [36].

A study conducted by Stewart et al. [37] found that productive time lost due to common pain conditions such as headaches, back pain, and arthritis costs U.S. employers more than \$61 billion each year and that most of that lost time is caused by impaired performance at work rather than workplace absence. Unfortunately, the costs of presenteeism are compounded because employees who work when ill generally cost more in the long run from increased utilization of general and mental health services and short-term disability.

An economic analysis of several health and insurance databases by Goetzel et al. found that presenteeism was most likely to be associated with the following conditions in order of economic impact to employers: arthritis, hypertension, depression/sadness/mental illness, allergies, migraine/headaches, cancer, asthma, heart disease, and respiratory infections [4]. The average annual loss per company per employee per condition was \$156.66. Below is a chart reflecting costs to the employer due to some of these specific illnesses. All data in Table 2 are based on findings from Goetzel et al. [4], and are calculated based on indirect costs to employers per employee due to total costs from presenteeism.

The calculation uses the 2001 average hourly compensation rate of \$23.15 as a basis for calculating costs for presenteeism. The third column of the table adjusts for the updated hourly compensation rate for 2007 (\$25.91) according to the Bureau of Labor Statistics. Although the increased hourly compensation rate somewhat adjusts for inflation rates, assuming that hourly compensation rates are keeping up with inflation, it does not adjust for the inflated cost of idle assets, thus, it is best to also adjust for the total inflation rate, which in this case would be 17.05% from June 2001 to June 2007 [6].

Table 2. Indirect Costs to Employers per Employee Due to Total Costs from Presenteeism

Medical condition	Presenteeism cost 2001 per person/per year	Presenteeism adjusted compensation rate	Presenteeism adjusted total inflation rate
Depression	246.00	275.33	287.94
Heart disease	70.53	78.94	82.55
Hypertension	246.73	276.15	288.80
Diabetes	158.75	177.68	185.82
Migraines/ chronic headaches	189.23	211.79	221.49

Presenteeism often occurs when workers come to work even when they are not feeling well. Employers often blame individual workers for decreased productivity at work, yet the reasons for working when ill vary. Some working people feel they have a commitment to the job including to co-workers and the company. Others cannot afford to take sick days or to go on disability, many have no entitlement to paid sick days, and others are afraid to lose their jobs (employment insecurity) by not being ever-present on the job. Sometimes it is for a combination of these reasons. Oftentimes, presenteeism is a response to job stressors, overwork, and company policies. According to the CCH, 2006 Unscheduled Absence Survey disciplinary action remained the single-most used absence control program, with 91% of surveyed organizations reporting its use [27]. Employers want their employees on the job and using as few sick days as possible, but relying on disciplinary action to control absenteeism actually can be more costly because it can produce presenteeism.

### CONCLUSION

Employers are often under pressure from analysts, board members, creditors, and shareholders who demand to see positive short-term performance indicators such as revenue growth, positive financial ratios, and earnings. When the economic market becomes more competitive, ethical behavior and long-term goals appear to become of less importance than short-term gains. Business leadership (management) is just as fearful of employment insecurity as the people they employ. The inability to produce an increase in shareholder value is a sure way to make that employment insecurity a reality. In addition, top management and policy-makers are often tempted by lucrative bonuses that make short-term objectives much more appealing than long-term goals. These pressures can force decision-makers to push their managers and employees to meet objectives that can be both unreasonable and unsustainable. In order to meet these objectives, managers often adopt policies and create corporate cultures that encourage unhealthy working environments.

The direct and indirect costs to companies discussed in this chapter can be estimated in the hundreds of billions of dollars and are the consequences of the way work is organized. These costs reflect social decisions on the part of ownership and management as to how to maximize productivity and a lack of awareness of the harm resulting from these decisions. In short, unhealthy work environments are ripe with stressors that will cause illness and eventually take their toll on workers and on the bottom line. Simply because stress is not a standard accounting line item on a financial spreadsheet does not mean that it is insignificant in its financial toll on organizations. This chapter has presented a small amount of the evidence showing that stressors can have both direct and indirect costs to businesses.

## REFERENCES

1. OSHA News Release: Statement by U.S. Secretary of Labor Elaine L. Chao on 2006 Workplace Injury and Illness Rates, October 16 2007, cited 2008 04/24/08], OSHA News Release. Available from: <http://www.dol.gov/opa/media/press/osha/osha20071599.htm>
2. Auman, J. and B. Draheim, The Downside to Downsizing, in *Benefits Canada*, pp. 31-33, May 1997.
3. Lublin, J. S., Mergers Often Trigger Anxiety, Lower Morale, *The Wall Street Journal*, January 16, 2001.
4. Goetzel, R. Z., S. R. Long, R. J. Ozminkowski, K. Hawkins, S. Wang, and W. Lynch, Health, Absence, Disability, and Presenteeism Cost Estimates of Certain Physical and Mental Health Conditions Affecting U.S. Employers, *Journal of Occupational and Environmental Medicine*, 46:4, pp. 398-412, 2004.
5. Claxton, G., J. Gabel, I. Gil, et al., Health Benefits in 2006: Premium Increases Moderate, Enrollment in Consumer-Directed Health Plans Remains Modest, *Health Affairs Web Exclusive*, pp. w476-w485, 2006.
6. U.S. Census Bureau, Revised CPS ASEC Health Insurance Data, March 23, 2007, cited \_\_\_\_\_. Available from: <http://www.census.gov/hhes/www/hlthins/usernote/schedule.html>
7. Kaiser Family Foundation (KFF) and Health Research and Educational Trust (HRET), *Employer Health Benefits 2006 Annual Survey*, Author, Washington, DC, September 2006.
8. Towers Perrin, 2007 Healthcare Cost Survey, March 2007, cited March 2007. Available from: <http://www.towersperrin.com/tp/getwebcachedoc?webc=HRS/USA/2007/200703/07HCSSfinal.pdf>
9. Woodward, N. H., Supplemental Ltd Plans Can Reduce Executive Discrimination—Focus on Technology—Long-Term Disability, *HR Magazine*, December 1998.
10. Knowles, S. and P. D. Owen, Educational and Health in an Effective-Labour Empirical Growth Model, *Economic Record*, 73, pp. 314-328, 1997.
11. Clayton, A., Workers Compensation: A Background for Social Security Professionals, *Social Security Bulletin*, 65:4, pp. \_\_\_\_-\_\_\_\_, 2003/2004.
12. State of California Commission on Health and Safety and Workers' Compensation, *2006 Annual Report*, December 2006.
13. Goetzel, R. Z., The Financial Impact of Health Promotion and Disease Prevention Programs—Why Is It So Hard to Prove Value?, *American Journal of Health Promotion*, 15:5, pp. 277-280, 2001.

14. Waehrer, G., J. P. Leigh, D. Cassady, and T. R. Miller, Costs of Occupational Injury and Illness across States, *Journal of Occupational & Environmental Medicine*, 46:10, pp. 1084-1095, 2004.
15. NIOSH, Costs of Absenteeism, 2002, cited \_\_\_\_\_. Available from: <http://hr.cch.com/default.asp?subframe=/press/releases/101602a.asp>
16. Marc L. Berger, James F. Murray, Judy Xu, and Mark Pauly, Alternative Valuations of Work Loss and Productivity, *Journal of Occupational & Environmental Medicine*, 43:1, pp. 18-24, 2001.
17. Pollard, T., Changes in Mental Well-Being, Blood Pressure and Total Cholesterol Levels During Workplace Reorganization: The Impact of Uncertainty, *Work & Stress*, 15:1, pp. 14-28, 2001.
18. Chelius, J., D. Galvin, and P. Owens, Disability: It's More Expensive Than You Think, *Business and Health*, 11:4, pp. 78-84, 1992.
19. Hobson, C. J., L. Delunas, and D. Kesic, Compelling Evidence of the Need for Corporate Work/Life Balance Initiatives: Results from a National Survey of Stressful Life Events, *Journal of Employment Counseling*, 38, pp. 38-44, 2001.
20. Hasselhorn, H., P. Tackenberg, and R. Peter, Effort-Reward Imbalance among Nurses in Stable Countries and in Countries in Transition, *International Journal of Occupational and Environmental Health*, 10:4, pp. 401-408, 2004.
21. de Croon, E., J. Sluiter, R. Blonk, et al., Stressful Work, Psychological Job Strain, and Turnover: A 2-Year Prospective Study of Truck Drivers, *Journal of Applied Psychology*, 89:3, pp. 442-454, 2004.
22. Hoel, H., K. Sparks, and C. Cooper, *The Cost of Violence/Stress at Work and the Benefits of a Violence/Stress-Free Working Environment*, International Labour Organisation (ILO), Geneva, 2001.
23. Flash, What Is the Cost of Employee Turnover?, *Compensation & Benefits Review*, September/October 1997: Article # 8582, 1998.
24. Phillips, J., The Pricetag on Turnover, *Personnel Journal*, 69:12, p. 58, 1999.
25. Sibson Consulting, *Employee Turnover Depresses Earnings, Stock Prices by 38%, Nextera Research Study Shows*, PR Newswire, Princeton, NJ, 2000.
26. Jusko, J., Paying the Price (Cost of High Employee Turnover to Manufacturing Production), *Industry Week*, pp. \_\_\_\_-\_\_\_\_, 2000.
27. CCH Incorporated, 2006 CCH Unscheduled Absence Survey, cited June 1, 2007. Available from: <http://hr.cch.com/topic-spotlight/hrm/101206a.asp>
28. Drago, R. and M. Wooden, The Determinants of Labor Absence: Economic Factors and Workgroup Norms across Countries, *Industrial and Labor Relations Review*, 45:4, p. 776, 1992.
29. Akyeamong, E. and J. Usalca, Work Absence Rates 1980-1997, *Statistics Canada*, Cat. No. 71-535-MPB, No. 9.
30. Vistnes, J., Gender Differences in Days Lost from Work Due to Illness, *Industrial and Labor Relations Review*, 50:2, pp. 304-323, 1997.
31. Andrea, H., I. J. Kant, A. J. H. M. Beurskens, J. E. M. Metsemakers, and C. P. van Schayck, Associations between Fatigue Attributions and Fatigue, Health, and Psychosocial Work Characteristics: A Study among Employees Visiting a Physician with Fatigue, *Occupational and Environmental Medicine*, 60:(Suppl 1), pp. 99-104, 20\_\_.
32. Darr, W., *Examining the Relationship between Stress and Absenteeism: A Research Synthesis*, Concordia University, Canada, p. 191, 2005.
33. Loeppke, R., P. A. Hymel, J. H. Lofland, et al., Health-Related Workplace Productivity Measurement: General and Migraine-Specific Recommendations from the Acoem

- Expert Panel, *Journal of Occupational & Environmental Medicine*, 45:4, pp. 349-359, 2003.
34. \_\_\_\_\_, *BNA Human Resources Bulletin*, December 2002.
  35. Druss, B., M. Schlesinger, and M. A. Harris, Depressive Symptoms, Satisfaction with Health Care, and 2-Year Work Outcomes in an Employed Population, *American Journal of Psychiatry*, 158:5, pp. 731-734, 20\_\_.
  36. Higgins, C., L. Duxbury, and D. Coghill, Voices of Canada: Seeking Work-Life Balance, Report for Canada's Department of Human Resources and Skills Development (HRSD), in *The 2001 National Study on Balancing Work, Family and Lifestyle*, 2003.
  37. Stewart, W., J. Ricci, E. Chee, S. Hahn, and D. Moganstein, Cost of Lost Productive Work Time among US Workers with Depression, *Journal of the American Medical Association*, 289:23, pp. 3135-3144, 2003.